

BETTER LIVELIHOODS THROUGH POULTRY ENTERPRISES

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In the state of Bihar, India, the Integrated Poultry Development Programme has been working to improve the livelihoods of poor and marginalised rural people. By working to strengthen the entire value chain, the project has increased the income of the most marginalised groups, improved their nutritional diversity, and provided livelihoods for input suppliers and dedicated community professionals who support farmers and facilitate market linkages.

Cover VRP involved in vaccination of chicks

The Bihar Rural Livelihoods Promotion Society (BRLPS), known locally as JEEViKA, endeavours to develop and promote livelihood options to match the resource base and capacities of communities in the state of Bihar, India. To strengthen the livelihoods of rural households – especially women who are landless or have small land holdings – JEEViKA established the Integrated Poultry Development Programme in 2012, with support from the Bihar Government’s Department of Animal Husbandry and Fish Resources.

Rearing poultry does not require a high level of inputs or investment, so it is a popular choice with rural households, and the sector also provided an opportunity to meet a high demand for eggs and poultry meat – as Bihar was largely dependent on supplies of eggs and poultry meat from other states. The National Egg Coordination Committee (NECC) reported that 2.5-3 million eggs were imported into the state each day prior to 2012. Average consumption of eggs per person in Bihar was therefore only six to eight eggs a year, compared to the national average of 45.

The Integrated Poultry Development Programme

The aim of the programme was to establish a network of ‘mother units’ – where one-day-old chicks are reared for 3–4 weeks – to provide a hub for forward

and backward linkages. Once reared, the chicks are supplied to households organised into informal producer groups, where they are reared for eggs and meat. Dedicated community professionals, known as village resource persons (VRPs), support households to ensure proper feeding and vaccination for chicks. They also facilitate linkages with the local market.

The mother units are owned by cluster-level federations (federated bodies of self-help groups). Each household pays a fee of INR 3,150 (€42) to their federation over a period of 18 months, and in return receives 150 chicks (six lots of 25), subsidised housing for the chicks, and VRP support. After the first 18 months, households have to procure chicks at market cost.

With facilitation from JEEViKA, the federations manage the supply chain:

Production:

- **Mother units** – are operated by an experienced local entrepreneur. They rear day-old chicks up to 4 weeks of age, complete vaccinations, and then sell them to individual households.
- **Smallholders** – Rearers are mostly landless or marginal farmers. They are provided with 150 birds to rear for 18 months and a shelter made from locally-available materials, with half of the cost borne by the project. Through the VRPs, the Integrated Poultry Development Programme also

helps farmers to explore market opportunities to exchange their surplus produce. The female birds are kept to produce eggs for the market and household consumption, and the males are used for meat once they attain a weight of 2–2.5 kg (after about 2 months). The female birds are slaughtered and sold for meat after laying about 180 eggs.

Supply:

- **Day-old-chicks** – are sourced from private hatcheries. The hatcheries are identified by the Government of India, which then transports the chicks to its regional offices and sells them to mother units at market price.
- **Feed** – is supplied by a number of private feed-sellers.
- **Vaccine/medicine** – is regulated and controlled by community based organisations through community procurement from local markets, and community professionals are trained to vaccinate the birds.

Provision of services

- **Group formation** – JEEViKA organises landless women into self-help groups, which are then federated into village organisations, and then cluster level federations. The self-help groups hold weekly meetings to discuss progress and emerging issues.
- **Training** – All participants linked with the poultry intervention receive relevant training on poultry keeping.
- **Credit** – JEEViKA and the Department of Animal Husbandry and Fisheries provide credit support at various levels, from mother units through to poultry producer households.

- **Extension** – Extension services are provided by VRPs who are trained by JEEViKA. Women farmers are also able to raise concerns during their monthly group meetings that the VRPs can then help them with.
- **IT** – Scaling up of the intervention led to the need of digitisation of poultry records such as vaccination, mortality, distribution of birds, income flow and its utilisation. A mobile application was designed by BRLPS to capture this data at the mother unit and household level.

Impact on livelihoods

JEEViKA's backyard poultry intervention has had four notable achievements:

(a) The scale of its operations: since 2012, the programme has expanded from one to 38 districts in the state, involving 180,000 households.

(b) Incomes: Bihar's poorest and most economically vulnerable households have seen their income increased. On average, participating households have increased their monthly income by INR 3,500–4,000¹ (€46–53) from selling chicks and eggs. With the additional income from poultry, rural households have been able to invest in other areas, including education, health, and family savings. The project also helped generate employment opportunities for over 400

¹The average number of chicks per lot, received by individual members, was 24 (10 cocks, 14 hens). Average production per lot was 152 eggs and 27 kg of meat. The average income per lot was INR 4,365 (€58) and average expenditure, including member's contribution, was INR 369 (€4.8), therefore net income per person was INR 3,996 (€53.2).

Story of change

For years, Saroj Devi hid her identity behind the four walls of her *kutchra* house (made from mud or thatch), where she lived with her children and husband, Dinesh Paswan. Dinesh migrated to nearby towns to earn money, but with their meagre income source the family was soon under the grip of money lenders. For their household, which includes seven people, agriculture is the primary source of income. With a landholding of just 130 m², agricultural options were limited to one main crop and in some cases a small second crop.

Saroj's life started changing in 2009, when she joined a self-help group. She took a loan of INR 10,000 (€132) from the self-help group to pay off the money lenders, and in 2012 attended poultry training organised by JEEViKA. After the training she established a poultry mother unit at her house for which she took another loan of INR 150,000 (€1,980). In 2014 she joined a poultry business group linked with a mother unit. In the first 4 months, Sanju received 150 chicks in six lots. The poultry intervention is a low input, low risk secondary income generating option; the average net income per lot (25 birds) is INR 4,893 (€65) against an

expenditure of INR 393 (€5.20). In 16 months she earned INR 29,358 (€388) net income from egg and meat production. Now she lives in a *pucca* house (made from high quality materials), and has 670m² of land and a motorbike. Dinesh no longer migrates; instead he is engaged in agriculture and helps Saroj at the mother unit. She is ensuring a bright future for her children by sending them to a nearby private school.



Above VRP involved in vaccination of chicks

VRPs, and created a locally-based cadre of resource persons to provide veterinary services. These men and women earned about INR 2,500 (€33) per month for their services.

(c) Coverage: The intervention included the most marginalised sections of rural Bihar, many who were landless and would not have benefited from agriculture-based livelihoods. Nearly 30% of the households involved in the programme were also from scheduled caste and tribe communities.

(d) Improvements to household nutritional diversity: poultry farmers improved their nutritional status with the intake of meat and eggs, as required for a healthy diet. Studies on nutritional diversity by the

Food and Agriculture Organization of the United Nations (FAO) and by the Government of India have shown that there is a key link between productive and income generating activities and improvements in nutritional status for landless households.

In summary, three factors contributed to the success of the poultry intervention. The first one of these has been JEEViKA's approach of directly targeting and addressing the needs of landless households, and of providing households with intensive and ongoing technical support. But equally important has been the support given to the formation of producer organisations to take responsibility for bulk procurement of raw materials and aggregation.

Key issues	Current approaches	Future course of action
Resource utilisation	Use self-help groups for poultry interventions	Convert the cluster of household producers into cooperative or producer companies.
	Convert landless women to poultry producers who rear 150 birds for 18 months	Ramping up from 150 to 500-600 birds by supporting the collectivisation of smallholders to enable economies of scale for accessing inputs and services.
	Backward linkages are currently fragile and forward linkages are ignored	Backward linkages: production and technical support (training and skilling, extension services) and availability of raw materials needs to be strengthened. As part of this, farmers should have access to round-the-clock para-vet support, and weekly monitoring of production parameters. Forward linkages: with proper branding, birds sold through cooperatives or producer organisations can influence market prices and demand.
Productivity growth	Acceptance of low smallholder productivity with low input/low output birds	Moving towards improved inputs/improved outputs can be done with the development of alternative sources of poultry feed, based on crops grown locally, diversification of feed sources based on local practices, such as rearing termites in earthen vessels as high-protein feed for poultry, adding crushed snail shells to feed, promotion of vermi-compost in mixed farming systems and the feeding of greens, such as onion and garlic leaves.
Boosting growth	Credit for the sector required subsidisation from the project	Need for insurance cover for poultry rearing, targeted at smallholders. Risk mitigation can be achieved by delinking individual producers from fluctuations in both input and output markets; setting up mechanisms to absorb the effect of price fluctuations (i.e. during festivals, or widespread poultry diseases); and discriminating between good and bad production performance in the prices farmers can achieve.
	Greater focus on output and yield	To ensure that production costs remain competitive, the poultry producer payments have to be linked with the efficiency of poultry federations.

Scaling up: generating a virtuous cycle

Each step in the Integrated Poultry Development Programme model was crucial, but the impact of each is limited by the weakest link in the value chain. The challenge of further expansion demands approaches that will fundamentally shift the way poultry interventions are implemented. Functioning markets in which individual incentives are aligned with the social good, with prices which reflect real costs, and where honest work yields a dignified way of life, are crucial.

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<http://experience-capitalization.cta.int>



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